

REMARKS

I. Introduction

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of February 5, 2009 is respectfully requested.

By this amendment claim 8 has been amended and claims 9-11 have been added. Claims 1 and 8-11 are now pending in the application. No new matter has been added by these amendments.

II. Prior Art Rejections

Currently, claims 1 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Patel et al. (US 6,942,811) in view of Ohmi et al. (US 6,217,633).

Claim 1 is patentable over Patel et al. and Ohmi et al., whether taken alone or in combination, for the following reasons. Claim 1 requires a substrate processing system comprising, in part, a second gas supply source for supplying a second process gas containing a second reactive substance, which is different from the first reactive substance, to said reactor; and a bypass pipe connecting said second gas supply source to said reactor such that the second process gas can be supplied to said reactor without passing through said reservoir tank.

As stated in lines 14-20 of page 4 of the Office Action, Patel et al. does not disclose the second process gas as recited in claim 1, and also does not disclose the bypass pipe as recited in claim 1.

However, the Office Action asserts, in lines 6-10 of page 5, that Ohmi et al. discloses a second gas supply source and a bypass pipe. Importantly, the Office Action is silent as to the limitation “such that the second process gas can be supplied to said reactor without passing

through said reservoir tank” required by claim 1. In fact, Ohmi et al. does not meet this limitation. The Office action identifies gas tank (16) as the second gas supply source, gas source (10) as the reservoir tank, process chamber (1) as the reactor, and conduits (36, 45, 33, and 10a) as constituting the bypass pipe of claim 1. However, none of conduits (36, 45, 33, and 10a) can supply a gas to the reactor without the gas passing through the reservoir tank. (See Figure 1 of Ohmi et al.) Because Ohmi et al. does not disclose a bypass pipe connecting said second gas supply source to said reactor such that the second process gas can be supplied to said reactor without passing through said reservoir tank, Ohmi et al. cannot meet the requirements of claim 1.

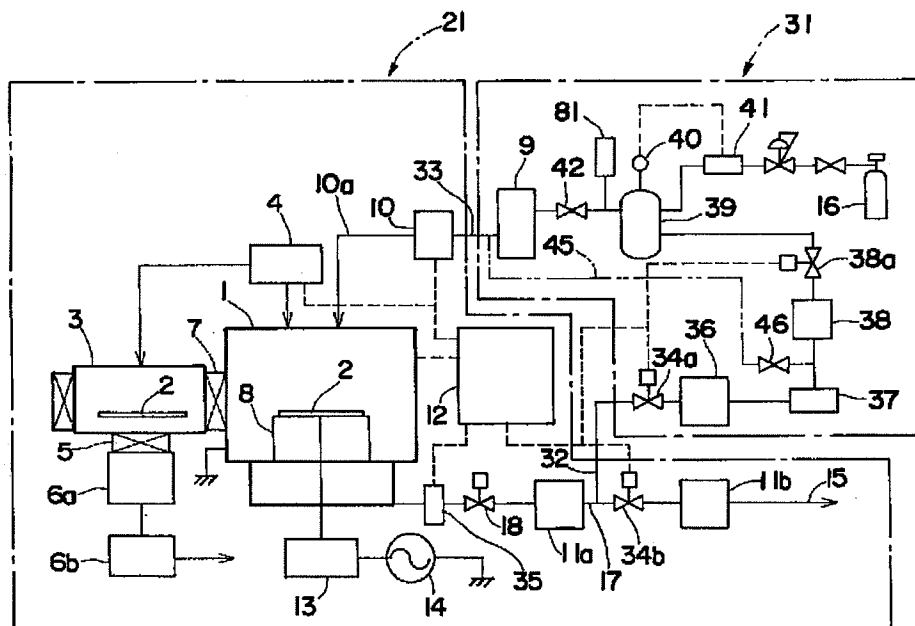


Figure 1 of Ohmi et al. (US 6,217,633)

It is thus submitted that the invention of the present application, as defined in claim 1, is not anticipated nor rendered obvious by the prior art, and yields significant advantages over the prior art. Allowance is respectfully requested.

Claims 8 and 9 depend, directly or indirectly, from claim 1 and are thus allowable for at

least the reasons set forth above in support of claim 1. Independent claim 10 includes the limitations discussed above with respect to claim 1, as does claim 11 by virtue of its dependency from claim 10; claims 10 and 11 are thus also allowable for at least the reasons set for the above in support of claim 1.

New independent claim 10 contains all the limitations of claim 1 as well as additional limitations which are not disclosed by Patel et al. or Ohmi et al. Specifically, Claim 10 requires a substrate processing system comprising, in part, a pressure pump disposed in said first circulation pipe and fluidly connected between said reactor and said reservoir tank, a pressure pump downstream valve disposed in said first circulation pipe and between said pressure pump and said reservoir tank such that said pressure pump downstream valve is downstream of said pressure pump.

As stated in lines 8-9 on page 4 of Office Action, Patel et al. does not teach a pressure pump fluidly connected between the reactor and the reservoir tank. The pump (23) of Patel et al. which the Office Action has identified as corresponding to the pressure pump is downstream of the reservoir tank on a conduit that serves only to evacuate the reservoir tank (see figure 1; column 4, lines 47-50.) Because Patel et al. does not disclose a pressure pump fluidly connected between said reactor and said reservoir tank, Patel et al. cannot meet the requirements of claim 10. Moreover, the pump (23) is not disposed in the first circulation pipe. Because Patel et al. does not disclose a pressure pump disposed in said first circulation pipe, Patel et al. cannot meet the requirements of claim 10. Patel et al. further does not disclose a pressure pump downstream valve disposed in said first circulation pipe and between said pressure pump and said reservoir tank such that said pressure pump downstream valve is downstream of said pressure pump. (See figure 1.) As such, Patel et al. cannot meet the requirements of claim 10.

Ohmi et al. also fails to meet the above-discussed requirements of claim 10. In particular, the pump (36) of Ohmi et al. which is identified as corresponding to the pressure pump is not disposed in a first circulation pipe. The first circulation pipe as required by claim 10 is for introducing the first process gas from the reactor to the reservoir tank. By contrast, the pump (36) of Ohmi et al. appears to be fluidly connected between tank (16) and exhaust passage (15). Because Ohmi et al. does not disclose a pressure pump disposed in said first circulation pipe and fluidly connected between said reactor and said reservoir tank, Ohmi et al. cannot meet the requirements of claim 10.

With respect to claims 9 and 11, neither the pump (23) of Patel et al. nor the pump (36) of Ohmi et al. discussed above can cause the first process gas to flow from said reservoir tank to said reactor through said second circulation pipe. Thus in addition to being allowable by virtue of their dependencies, claims 9 and 11 set forth additional limitations not disclosed or rendered obvious by the prior art.

In view of the foregoing amendments and remarks, inasmuch as all of the outstanding issues have been addressed, Applicants respectfully submit that the present application is now in condition for allowance, and action to such effect is earnestly solicited.

Should any issues remain after consideration of the within response, however, the Examiner is invited to telephone the undersigned at the Examiner's convenience. If any fee beyond that submitted herewith, or extension of time is required to obtain entry of this Amendment, the undersigned hereby petitions the Commissioner to grant any necessary time

extension and authorizes charging Deposit Account 23-0975 for any such fee not submitted herewith.

Respectfully submitted,

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